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ABSTRACT

There are many unresolved issues in the education of exceptional children and youth. This report addresses four topics of current interest and concern: (1) Gifted education -- the gifted and talented are currently underserved and underachieving, in part because federal support is not available. Problem areas in this context include: defining the gifted, extending special programming to the gifted, and selecting appropriate learning programs. (2) The relationship between regular and special education -- this must be restructured to achieve shared responsibilities between general and special practitioners and more effective use of the resource room and consultant models. (3) Secondary special education and the transition from school to work -- issues, needs, and work remaining to be done in both these areas are discussed, and future directions and challenges are listed. (4) Early childhood, birth to three -- programs for young handicapped children have experienced a rapid increase, with an emerging focus on the at-risk infant. The following issues are covered: school involvement, work with families, personnel, and research directions. A reference list covering all four issues is appended. (PS)

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Current Issues and Future Directions in Special Education

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CURRENT ISSUES AND FUTURE DIRECTIONS IN SPECIAL EDUCATION

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Recent trends and societal attitudes have brought many handicapped children and adults from segregated settings into the regular educational system and normal community environment. In 1975, the passage of P.L. 94-142, The Education of All Handicapped Children Act, required states by September 1, 1978, to provide appropriate education for all handicapped children between the ages of 3 and 18. The implementation of the Act brought changes in delivery systems of both regular and special education. Although gifted children are excluded from federal legislation for exceptional children, their unmet needs in regular school programs, the demands on schools to provide special learning environments, curriculum, and trained personnel, parallel the needs of other exceptional children.

Who are the children we call exceptional? Some use the term for a very intelligent or talented child. Others use it when describing any atypical child. In this chapter we have used the term to include both the child who is gifted and the child who is handicapped, which is a generally accepted definition. Therefore, the exceptional child is one who differs from the average child in mental characteristics, sensory or communication abilities, social behavior, or physical characteristics. These differences exist to the degree that the child requires a modification of school practices or special education services to develop to his or her potential.

There are many unresolved issues in the education of exceptional children and youth. This chapter will address four topics of current interest and concern: (a) gifted education, (b) restructuring the relationship between regular and special education, (c) secondary special education and the transition from school to work, and (d) early childhood, birth to three.

Gifted Education in Perspective

The gifted and talented currently represent an underserved and underachieving population of students. This situation will not change without a concentrated effort to affect policy in the schools (Callahan, 1984). Education of gifted children and youth continues to be of concern both to their parents and to educators of the gifted. It is estimated that only 40% of gifted students who require special education services are receiving them. However, there is a growing national interest in support of gifted education. This sociopolitical climate, created by A Nation at Risk (National Commission on Excellence in Education, 1983), and numerous other critical examinations of American education has led to hearings, investigations, and demands for excellence in education (Whitmore, 1984).

Programs and services for the gifted have not kept pace with those for the handicapped. A major difference has been in federal funding. Federal legislation has supported the handicapped in research, personnel preparation, and program demonstration. Such federal support is not available to the gifted, and states and local communities have not provided it.

Who Are Our Gifted Students?

Gifted children, as reported by state directors of gifted programs, make up between four and six percent of the student population (Kirk & Gallagher, 1986). Identification of the gifted has always been and continues to be an issue. Because of varying selection criteria, a child in a gifted program in one school system may not be eligible for such a program when the family moves to another area.

Traditionally, the gifted have been identified for special programs by IQ tests, academic records, and teacher or peer nominations. Generally one thinks of the gifted as having outstanding abilities in such areas as intellect, academic achievement, creative thinking, leadership, and the visual and performing arts.

Within the gifted population there are four subgroups requiring special attention: (a) highly gifted children; (b) gifted girls; (c) gifted underachievers; and (d) gifted students who also have a handicap.

Kirk and Gallagher (1986) describe these special groups of gifted children and young people. The highly gifted children are those with extraordinary abilities and are rare in our society. They are considered child prodigies. They can speak in foreign languages before others enroll in kindergarten; they enroll in college courses at age 12, and win national honors for accomplishments in their twenties. The number of these children is small, but should or can the education system respond?

There is a growing belief that gifted girls represent one of the largest groups of untapped potential. Probably reflecting society's attitudes about what the female can accomplish, gifted girls show less aptitude (interest?) in mathematics and science.

Handicapped children who may be gifted are often overlooked. Because a child cannot see or walk does not mean that the child does not have intellectual gifts or talents. What it does mean is that such children stand a good chance of having such talents overlooked.

Programs for the Gifted--A National Picture

A recent national survey conducted by the Richardson Foundation (Cox, Daniel & Boston, 1985), has created much interest in gifted education. The "overriding reason" the Foundation decided to undertake this survey "was the lack of hard data about what is going on in the programming for able learners, particularly noticeable on the national scale" (p. 29).

A questionnaire was sent to every public and parochial school district in the country. Then a more detailed questionnaire was sent to the more than 4,000 who responded to the first. The 1,572 responses to this second effort (400 schools and 1,172 school districts) were what was analyzed. The sample is certainly not random and can only reflect the picture of gifted education in the programs that responded. Nevertheless we have some basic information on existing program options, identification procedures, extent of substantial programs, and other interesting program data. The most frequent program options were the part-time special class or "pull out" model in the 72% of the districts reporting. This option was followed by enrichment (63%), independent study (52%) and resource room (44%). The least prevalent gifted programs were the nongraded schools (3%), the special school (4%), and fast paced courses (7%).

In addition to the survey, the researchers visited a number of the schools to gather on-site program data for analysis. Perhaps one of the most interesting concepts and potential promising practices is that of flexible pacing. "The conviction that students should move ahead on the basis of mastery may be the single most important concept for educators designing programs for able learners" (p. 135). The researchers visited a number of elementary schools and one high school where instruction based on age, grade, and uniform pacing was eliminated.

Unresolved Issues and Needs

Many people have difficulty with the concept that special education should include the needs of the gifted with the needs of the handicapped. But the issue of unfulfilled potential is the same. It is as critical for the gifted as the handicapped. The unmet needs "in regular school programs and the demands on schools to provide learning environments, curriculums, and trained personnel for children with special gifts parallel the needs of other exceptional children" (Kirk & Gallagher, 1986, p. 31).

Unresolved issues in gifted education have been identified by Kirk and Gallagher (1986) as: (a) love-hate relationships with gifted--many who support special education for handicapped define exceptionality in terms of deficits and are reluctant to extend special programming to the gifted; (b) special teachers and classroom teachers--personal and administrative adjustments are needed; and (c) undiscovered and underutilized talent. In a special issue of Gifted Child Quarterly, Jenkins-Friedman (1986) summarizes the research and development activities needed to stimulate research and encourage innovations: (a) use meta-analysis to study effects of gifted programs on achievement; (b) study the impact of labeling students gifted; (c) include creativity as an aspect of giftedness; (d) examine thinking processes rather than focusing on the product; (e) develop, use, and evaluate new models for creative thinking and problem solving; and (f) promote the role of the federal government as a catalyst for higher and more consistent levels of gifted program services to students, teacher preparation, and basic research and development.

Future Directions and Challenges

- To provide impetus and development support, the federal government should act as a catalytic agent in the support of such activities as research, program development, leadership training, and dissemination. Examples of research include: (a) study of higher intellectual processes, (b) development of coping skills, (c) nature and treatment of underachievement, and (d) talent development in minority groups. An additional essential support would be to make visible demonstration gifted programs that are exemplary. Another productive investment would be to strengthen the leadership cadres in the state departments of education (Gallagher, 1986a).

- Undiscovered gifted students should be found and their talents used. This includes the underachievers, children with different cultures, and handicapped children.

- Education should address the educational needs of the very highly gifted students.

Restructuring the Relationship Between Regular and Special Education

A most important issue facing special education in the next few years is restructuring and redefining the relationship and boundaries between special and general education. Here we are talking primarily about the mildly handicapped who have been "mainstreamed" into the regular school program--either with or without necessary special education support services.

Special populations must also be a consideration as all students are appropriately served in the mainstream. "It is clear that children...will be poorer, more ethnically and linguistically diverse and will have more learning differences. A major challenge...during the next decade will be to redefine the tolerance of individual differences within the regular classroom and to alter the current categorical mindset we have that tends to refer away from the regular classsroom a large number of children who are having learning problems" (Schrag, 1986, p. 84).

An area demanding critical attention in the development of educational programs for handicapped students is the proactive participation between special education and general education practitioners. While there is a wide range of opportunities for interface, the most promising and productive examples occur among direct service providers at the local building level where staff support teams provide a forum for addressing student and staff support, personnel development, and instructional technology. At the broader local and state levels, leaders in both general and special education must cooperate in promoting and supporting opportunties for cooperation in service delivery and in the funding of all education programs (Greenburg, 1986).

Madeleine C. Will, Assistant Secretary for the Office of Special Education and Rehabilitative Services (1986) further identifies the issue in terms of individualization of instruction and the separation of educational systems:

> After 10 years since the passage of Public Law 94-142 education systems have redefined the concept and practice of individualized instruction and also the role of parents in the educaiton of their children.
>
> The language and terminology we use in describing our education system is full of the language of separation, of fragmentation, of removal. To the extent that our language reflects the reality of our system as many diverse parts never or rarely connected as a whole, it reflects a flawed version of education for our children. (p. 412)

Current Issues and Practices

The least restrictive environment provision of P.L. 94-142 directs that, to the maximum extent appropriate, handicapped children will be educated with nonhandicapped peers. This stipulation of the Act has been controversial and difficult to implement in local schools. Problems and issues include: (a) the shared responsibilities by general and special educators, (b) the relationship with the regular classroom teacher, (c) the question of a merger into a single system, and (d) the financial dilemma.

Shared responsibilities. The development of public educational systems demonstrates the extent to which special education and general education structures were initiated as conceptually and administratively separated entities. Over time, however, the essentially parallel systems have become successively convergent and even interdependent.

There is little doubt of the increasing need for shared responsibilities by general and special educators--whether service providers or decision makers, and particularly at the building level. Promising practices are in place through prereferral strategies on behalf of students and the emergence of building teams for both student and teacher support.

General educators who were once expected to direct instruction to the level of the largest portion of students in the classroom are now expected to address the ever-expanding range of student abilities and limitations and charged to provide instruction appropriate for each child. Decision makers in both general and special education are increasingly aware of the interdependence of resources and services; and public program scrutiny and product demands may have never before been greater (Greenburg, 1986).

The teacher and the resource room and consultant models. Many mildly handicapped students once in special education classes are now in regular classrooms. Both the resource room model and the teacher consultant model

provide services to handicapped children placed in regular classrooms. To some extent, these models have bridged special education and general education instructional services.

The resource room model is probably the most widely implemented alternative to the segregated, self-contained special education class. The handicapped child is placed in a classroom provided for general education when not in the resource room for instruction support. These resource room programs usually have recommended time parameters for an individual student's attendance, but the time can vary from a minimum of three hours per week to half of a school day.

Considerable need exists, then, for coordinating efforts between the resource room teacher and the general education teacher. Two particular complications frequently exist in this area--time constraints of both teachers, who have full instructional responsibilities, and need for development of some special education expertise by the general education classroom teacher. In addition to coordination demands, there are problems created in the general education classroom by the removal of a child, even on a regular, predictable schedule. While most teachers in general education classrooms have adapted to the frequent interruptions and have developed some understanding of the resource room concept and program, there remain significant exceptions. In many instances, the responsibility falls to the handicapped child to become informed of missed assignments and to complete classroom work missed while special education services for the learning difficulty were provided in the resource room (Greenburg, 1986).

The special education teacher consultant services delivery option, developed for addressing the learning difficulties of handicapped children, provides support and consultation to general classroom teachers. This option is less widely used than the resource room. Problems in implementing this model are related to the necessary skills in communication, human relations, and problem solving. Also, special educators charged with direct responsibility for assistance to general classroom personnel may be limited in repertoire of techniques regardless of the value of the special education information and assistance they have to offer.

The situation can become particularly critical if a general education classroom teacher is an unwilling participant in the whole process. Such, too, is fuel for the general education concern about the adequacy of the special education system's ability to provide sufficient support along with the return of students once thought unable to perform in the general education class setting (Greenburg, 1986).

A single education system? Special education was developed over a century ago to meet the instructional needs of students considered to be exceptional. Since then a dual system of education--special and regular--has developed. Although special education is technically a "section" of regular education, there does exist an operating dual system, each with its own pupils, teachers, supervisory staff, and funding (Stainback & Stainback, 1984).

U.S. Department of Education Assistant Secretary Madeleine Will (1984) suggests that confusion exists concerning the goals and the interrelationship of general and special education. She notes the evolution of general and special education into separate and compartmentalized service delivery systems. Ms. Will (1986) later cites the parallel systems as obstructive to accomplishing the overall goal of P.L. 94-142 and calls for collective contributions of general and special education skills and resources in addressing student services.

The Stainbacks' (1984) position is that "there are not two distinct types of students--special and regular....regardless of any designated cutoffs, all students still differ to varying degrees from one another along the same continuums of differences" (p. 102). The authors suggest, then, what could exist is a single, unified system of education in which general education and special education expertise and resources are merged to provide for individual differences among all students and would conserve the human and fiscal resources required by the nature of dual (and often duplicative) systems.

Particularly germane to this discussion is the Stainback and Stainback argument that the existence of a dual education system has "fostered competition...rather than cooperation among professionals...[and] has interfered with...cooperative efforts" (p. 104). The division has extended into the application of research findings, preservice preparation of personnel, and direct service programs by creating otherwise nonexistent barriers and dividing "resources, personnel, and advocacy potential" (p. 105). Among the education systems merger implications would be (a) a refocus by instructional categories of the preparation and assignment of personnel, (b) general heterogeneous grouping of students with homogeneous grouping by instructional needs only for specific courses, (c) support personnel's attention to appropriate student program planning rather than to classification eligibility, (d) school funding by program element rather than the categories of exceptionality, and (e) viewing a specific individual difference as one of the student's characteristics to be considered rather than an educational disability around which planning occurs.

There is debate about a single system and support for special education as a system (Mesinger, 1985; Lieberman, 1985). Mesinger bases his opposition in a perception that the only positions which seem to assert it is time to evolve to a single system are those which emerge from the special education community. He notes a reluctance "to abandon special education as a system until I see evidence of a drastic improvement in regular educational teacher training and professional practice in the public schools" (p. 512).

Lieberman (1985), on the other hand, commends Stainback and Stainback for presenting the concept; but he sees the nationwide initiatives of school effectiveness and excellence in education as "upholding the nature of the system, standards, and grades above the nature of the individual" (p. 516). He further suggests the purposes of special education can best be met through continuation of the dual system "with each party maintaining a

strong sense of individual identity, while creating an ideal interface between the two" (p. 516).

With evidence of such divergence in thinking among leaders in the special education community, there appears a clear need for the ideal interface between general and special education.

The financial dilemma. Both general education dollars and special education dollars are in short supply. There may be a greater need now than there has previously been for general education and special education to engage in cooperative planning limiting duplication of effort and efficiently providing for appropriate programs and services for all students. Given the variety of systems for funding general education and special education programs, it is more difficult to orchestrate collaborative education finance lobbying efforts in some states than in others. Cooperative efforts seem most successful in those states where the funding formula for special education programs is based on the same foundation as general education funding. Both constituents, then, can press for increases in the foundation amounts, which increase program allocations accordingly. In those situations, greater attention can be focused on local allocation practices (Greenburg, 1986).

Future Directions and Challenges

- The resource room and consultant teacher models need considerable research and review as the best ways to deliver instructional services.
- Special education and general education must develop a mechanism for a shared responsibility for all students.
- Educators need to maintain awareness of the fiscal condition of the total education agency and seek out and promote opportunities through which special education and general education efforts can be combined to reduce duplication and to conserve the fiscal resources of both.

Secondary Special Education and the Transition from School to Work

In recent years, public schools have become increasingly sensitive to the special educational problems of handicapped secondary youth. Today secondary programming is a primary concern of special education. Key issues include: curriculum, with particular attention to basic skills (reading, writing, arithmetic, communication, and social skills); career and vocational education; and transition from school to work.

Transition from school to work is a current issue for special education, vocational and career education, and the federal government. Assistant Secretary Will (1983) has announced that the Office of Special Education and Rehabilitation Services established as a national priority the improvement of the transition from school to working life.

Needs in secondary education include (a) development of appropriate secondary school curriculum, (b) continued focus on effective transition models, (c) adequate preparation of secondary school special education personnel, and (d) research to track special education students who exit from the school system. More specifically, Judy Schrag (1986), Washington State Education Agency, reported the following problem areas identified by states:

- o lack of information on available post school services.
- o inadequate procedures for transfer of records.
- o inadequate procedures for application to post school services.
- o identification of post school services prior to graduation.
- o little relationship between the high school curriculum and the demands in post school training sites.
- o need for earlier beginning in vocational planning and training.
- o need for more involvement of parents in knowledge of available services, access to services, and overall planning of increased transition employment and community services.

Current Issues in Curriculum, and Transition Programs

In a recent statewide survey, Halpern and Benz (in press) examined the status of high school special education in Oregon for students with mild disabilities. Subject groups included school district administrators with responsibility for sepcial education services at the secondary level, special education teachers who were assigned to high schools, and parents of high school students with mild disabilities. Questionnaires were developed for each group and focused on the following questions: (a) what is the current status of special education programs, (b) what gaps presently exist, and (c) what areas are in greatest need for improvement?

In the curriculum area, the study uncovered some unresolved basic issues. Questions were raised concerning both the nature of appropriate content within the four curriculum domains (basic, academic, occupational, and independent living) as well as the relative emphasis that should occur among the domains.

Another issue discussed by Halpern and Benz (in press) concerned the balance between the basic and other components of the curriculum:

> On the one hand, it is clearly desirable to focus on the basic skills, whenever there is a reasonable hope for effective main-streaming. Such a policy, however, can be self-defeating in two ways: (1) the student may still not succeed, in spite of our best efforts; and (2) the time and effort spent on basic skills

acquisition may come at the expense of not learning the community adjustment skills being taught in other parts of the curriculum. When this happens, the student is a double loser.

The resolution of these issues will not be easy. In the meantime, unfortunately, as we struggle to find the right answers, parents, students, and teachers are often likely to become frustrated as decisions are made concerning the educational programs of students.

Since the passage of the 1983 Amendments to the Education of the Handicapped Act, transition of handicapped students from school to work, community living, or higher education has become a national priority. Model transition projects and programs are being implemented in states using both state funds and federal discretionary funds. Projects include development of a functional high school curriculum, planning for vocational transition and employment placement, and the development of increased employment options.

Here are examples of three state legislatures' response. Massachusetts passed legislation informally known as "Turning 22 Legislation" which set up a Bureau of Transitional Planning to help disabled students move from school to adult social service agencies after they reach age 22. Other states' legislation includes: California--formally coordinate transition planning for handicapped leaving schools; Washington--requirement of the special education and vocational education units in the state education agency and the Department of Community Development to develop formal state planning for transitional services and also implement a mechanism to follow handicapped high school graduates' transition to adult services and employment options (Schrag, 1986).

Although transition models are being developed, there is still much work to be done. Halpern (1985) reported that the findings of a survey which asked questions about links between the schools and community agencies were not particularly encouraging:

Less than 50% of the administrators indicated the presence of even informal agreements with adult service agencies concerning the transition needs of students with disabilities. Only 10% identified the existence of formal agreements. Although 60% of the teachers stated that other agencies had been contacted concerning transition services, only 20% of the parents acknowledged ever receiving such services. Further contributing to the lack of linkages, only one-third of the districts provided other agencies with census data on the number of graduating students each year, and just slightly more than one-third collected follow-up information on their graduates.

The question of coordination arose also in this context, and once again, teachers and administrators did not often agree on who was responsible for coordinating transition services. Furthermore, only two-thirds of the administrators even believed that transition

services were an important concern of school districts. By inference, it would appear that responsibility for this area was being placed on other agencies. (p. 484)

Future Directions and Challenges

- Studies are needed that investigate what happens to exceptional children and adults over such key transition points in their lives--the entrance into school, the movement from elementary to secondary school, and the transition from school to work or vocational activity, and the transition into adulthood and adult responsibilities (Gallagher, 1986b).

- Research should be conducted to study the changes in cognitive, social, and emotional development of exceptional individuals and the social dynamics of their interaction with others during a transition period.

- The database on transition experiences must be expanded. Currently, state education agencies can only estimate the number of handicapped individuals who make their way into the work force and the number who remain jobless despite service efforts.

- High school curriculum should be improved for a better relationship with the demands of post school services.

- Work is needed on the development and implementation of policies to provide earlier vocational planning and training as well as policies and procedures to move students more effectively from one service to another.

- Enhanced and expanded interagency planning of existing and needed transition programs and servies is needed.

- Increased post school services should be developed.

- A database should be implemented to systematically follow handicapped students into postsecondary programs, day programs, and competitive employment.

Getting an Early Start: Birth to Three

Since the passage of P.L. 94-142, there has been a rapid growth in programs for young handicapped children with a continuing emerging focus on the at-risk infant, birth to three years. Laws such as P.L. 94-142 and P.L. 98-199, research and demonstration results, and the increasing evidence of readiness for learning demonstrated by infants shortly following birth have interacted to bring about this growth.

Even with the growth in attention and programs, problems do exist. The federal government has gradually extended national policy to cover all handicapped children, birth to 21 years; however, not all state policy has kept pace. Unsatisfactory progress has occurred for young children because rulings and mandates have not always extended to include the infant and preschool population (Bricker, 1986).

As early childhood special educators address the futures of at risk infants, they face numerous and unique problem areas and issues. Key issues to be considered now and into the immediate future include: interagency coordination (local, state, and federal levels as well as public and private agencies); state mandates and how they are being implemented (states are using many different approaches to serve the birth to three population); parent involvement; work with pediatricians and other medical and health personnel; identification and assessment of at-risk infants; personnel preparation; curriculum models; and prevention (nutrition and prenatal care).

Unresolved Issues and Needs

Although they are still considered an underserved population, more and more handicapped and at-risk infants and toddlers are benefiting from early intervention programs. For the purpose of this chapter, let us look at just a selected few of the issues: school involvement, work with families, personnel, and research directions.

Who are the infants? Infants and toddlers who benefit from early intervention services can be classified into three groups: (a) developmentally delayed or disabled children who have congenital disorders, sensory impairment, neurological dysfunction, or significant delays in one or more of the major areas of functioning (e.g., cognitive, language, social-emotional, and motor development); (b) medically or biologically at-risk children with health factors that are known to be a potential threat to development such as prematurity and small size for gestational age; and (c) environmentally at-risk children whose physical or social circumstances, such as severe poverty, neglect, or abuse, may undermine their developmental progress (Zeitlin, 1986).

> Although children with apparently normal capabilities can compensate for early deprivation, it is less clear how adverse environments affect handicapped children. As a group, the handicapped infant and young child by definition have fewer resources with which to compensate for poor environmental input. It may be appropriate to assume that neglecting and abusive parents may have a greater and more enduring impact on handicapped children. Children who begin with a disadvantage, whether physical, sensory, or intellectual, are less well equipped to compensate for yet further deficits produced by uncaring or ill-informed adults. (Bricker, 1986, p. 30)

Where are these infants served? Location is decided by the geographical setting, resources available, and goals of the services available. Programs for the handicapped infants and toddlers may be home based, center based, or with some combination of agencies such as affiliates of United Cerebral Palsy and the Association for Retarded Citizens, mental health clinics, special day care programs, and schools.

The schools and infants--why? Why should the public schools move into an early intervention program? Certainly it is not an approach shared by everyone. However, Dr. Diane Bricker (1986) who has worked with infants and their parents for a number of years, has "sound reasons" for expanding the public school system to the education for at-risk and handicapped children:

1. The public schools are the only social-political institutions suitably equipped to assimilate educational programs for young children.

2. Waste is inevitable if parallel educational intervention systems are to be maintained for infants and preschool children.

3. One system should enhance the continuity of delivering services in a more normalized setting. (p. 375)

Family involvement is a must. The educational system to work with the handicapped infant must include the total family of the baby.

A family-oriented approach is important because the family is the primary environment for children under three years of age. Optimal development of the child is most likely to occur when the family is able to provide supportive and nurturing care. Therefore, early intervention programs assess the needs of the family as well as the child and in collaboration with the parents develop services to meet those needs (Zeitlin, 1986).

A trend now is for professionals to work with a family system instead of with the individual child. A handicapped infant or child impacts on all the faimly members including the siblings. Since a generation of research has demonstrated the influence of the family and the social ecology upon the adaptation of the individual, a family education plan, not an individual plan, is what is needed (Gallagher, 1986b).

Research can help. A prevention strategy would be to eliminate or reduce risk factors which appear to be linked to production of handicapping conditions. An increasing number of high-risk children are those with low birth weights. These children are now surviving where previously they would have died at birth. Infants born weighing 700-800 grams are approximately at a 50% risk for becoming handicapped.

Gallagher (1986b) identified some critical areas and potential approaches to solutions.

- A methodological problem hindering more sophisticated research into family and social interactions is the limited set of instruments

available. Supporting agencies, in a deliberate and planned effort, should contract for the development of the needed instruments. Organized research units, centers, and institutes have the diversity of staff, stability, and support systems to conduct the long process of instrument development.

- o Research to be most useful should be both intensive and committed to a long term. "In many instances, it should have a multi-disciplinary approach to it to reflect the wide diversity of needs and service delivery patterns used with exceptional children and their families" (p. 139).

Future Directions and Challenges

- o Expand services to include children from birth through three. This effort requires significant interagency collaboration. No one agency can provide the range of educational, medical, and social service needs of this population.

- o Conduct more rigorous research, particularly longitudinal studies on the efficacy of preschool programs.

- o Expand preparation programs for early childhood education personnel.

- o Promote legislation in every state to mandate indentification and programming for handicapped children down to birth.

- o Provide high-quality undergraduate and graduate training in this specialized field.

- o Promote high-quality day care programs that admit handicapped children.

- o Develop reliable instruments for screening young handicapped infants, assessing critical aspects of their development.

- o Work more effectively with families.

- o Develop more sophisticated ways of evaluating programs.

- o Provide funds to conduct research.

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